

Amendments To The Claims:

Please amend the claims as shown.

1.-9. (Canceled)

10. (Currently amended) A bipolar plate for fuel cells, wherein the bipolar plate is provided on its surface with a layer of a ~~hydrophobing~~ hydrophobic material soluble in a solvent, wherein the hydrophobic material comprises alkylsilanes, and wherein the alkylsilanes are alkyl-aryl silanes or halogen-alkyl-aryl-silanes.

11. (Currently amended) The bipolar plate in accordance with claim 10, wherein the ~~hydrophobing~~ hydrophobic material further comprises ~~entirely or partly~~ an amorphous fluoropolymer.

12. (Currently amended) The bipolar plate in accordance with claim 10, wherein the ~~hydrophobing~~ hydrophobic material further comprises ~~entirely or partly~~ a polysiloxane compound ~~or alkylsilanes.~~

13. (Canceled) ~~The bipolar plate in accordance with claim 12, wherein the alkylsilanes are alkyl-aryl silanes or halogen-alkyl-aryl-silanes.~~

14. (Previously presented) The bipolar plate in accordance with claim 10, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity.

15. (Previously presented) The bipolar plate in accordance with claim 11, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity.

16. (Previously presented) The bipolar plate in accordance with claim 12, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity.
17. (Previously presented) The bipolar plate in accordance with claim 10, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.
18. (Previously presented) The bipolar plate in accordance with claim 17, wherein the thickness of the layer ranges from 0.5 nm to 5 nm.
19. (Previously presented) The bipolar plate in accordance with claim 11, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.
20. (Previously presented) The bipolar plate in accordance with claim 12, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.
21. (Presently presented) The bipolar plate in accordance with claim 14, wherein a thickness of the layer ranges from 0.1 nm to 50 nm.
22. (Previously presented) The bipolar plate in accordance with claim 10, wherein the bipolar plate comprises a metallic alloy.
23. (Previously presented) The bipolar plate in accordance with claim 22, wherein the metallic alloy is a nickel-based alloy.
24. (Previously presented) The bipolar plate in accordance with claim 11, wherein the bipolar plate comprises a metallic alloy.

25. (Currently amended) The bipolar plate in accordance with claim 10, further comprising a ~~highly~~-conductive contact layer between the bipolar plate and the layer made of the ~~hydrophobing~~ hydrophobic material, wherein the highly-conductive contact layer is made of a noble metal.

26. (Previously presented) The bipolar plate in accordance with claim 25, wherein the noble metal is gold.

27. (Previously presented) A fuel cell, comprising:  
a membrane-electrode unit; and  
a bipolar plate electrically contacting the membrane-electrode unit on the electrode side, wherein the bipolar plate is in accordance with claim 10.

28. (New) A bipolar plate for fuel cells, comprising:  
a layer of a hydrophobic material soluble in a solvent on a surface of the bipolar plate, wherein a thickness of the layer is adjusted to an optimum between a low electrical contact resistance to an adjoining electrode and a high hydrophobicity, and wherein the thickness of the layer ranges from 0.1 nm to 50 nm.